



SEQUOIA & KINGS CANYON NATIONAL PARKS

& SEQUOIA NATIONAL FOREST/GIANT SEQUOIA NATIONAL MONUMENT

WINTER 2009-10 GUIDE



- | | |
|--|---|
| Free Activities • page 3 | page 8 • Facilities & Ranger Programs in Sequoia |
| Safety Tips / Finding Gasoline • page 5 | page 9 • Facilities & Programs in Kings Canyon & USFS |
| Highlights in Sequoia Park • page 6 | page 10 • Camping & Lodging / Bears & Your Food |
| Highlights in Kings Canyon & USFS • page 7 | page 12 • Park Road Map |



The changing face of winter

As days get shorter and cold nights lengthen, many visitors look forward to the changes that winter brings. These parks show a new face as summer dust settles and cool, green shadows replace the yellow wash of heat. The clatter of traffic and voices and the buzz of summertime bugs and birds fade with the waning daylight, replaced by the solo call of a raven over an otherwise quiet land.

We are given the chance to marvel at the stillness and outward simplicity of a world blanketed by snow. For most animals, however, winter survival is anything but simple.

American pikas (small, high-altitude cousins of rabbits) survive the Sierra Nevada's harshest climes by preparing all summer. Pikas not only store food like some other species, they have evolved a clever way to preserve it by making hay while the sun shines – literally. Pikas collect grasses and dry them in the summer sun. This preserves the plants that then provide sustenance under the snow during the long, cold winter.

Mountain yellow-legged frogs in the high Sierra use a different survival tactic: they can survive below ice for up to nine months without harm. Over thousands of years, they evolved the ability to change their physical needs in winter to tolerate low oxygen and cold water in lakes. This allows them to live in an area that is hostile to many of the predators that their lower-elevation relatives must escape from.

All animals and plants have, over thousands of years, developed survival traits specific to their environments. They may not, however, be



To survive, pikas need cool temperatures in summer and the insulation of a snowpack in winter. Seven inches long, they live in tunnels under the snow where they eat "hay" — grasses they dried in the summer sun and store for winter food.

able to adapt fast enough to meet the threat of global climate change. The traits that the pika and the mountain yellow-legged frog have perfected over thousands of years may not be enough to protect them as rapidly changing climate changes their habitats.

As the climate warms, snowpacks are shrinking and melting earlier. Pikas in some areas have had to move farther uphill in search of the protective snowpack that they need to live safely in winter – if there is still room uphill to move to.

The mountain yellow-legged frogs' ability to survive winter in an icy place has helped keep them safe from many threats. A warmer environment, however, may let predators and diseases move up into that area.

In the western United States, impacts from climate change that we are now observing include not only changing snow packs, but also increased wildland fires, invasion by non-native species, and more tree deaths. Some scientists view the Sierra Nevada as one of the "canaries in the coal mine" when it comes to climate change. We know that the stillness that we appreciate in winter now covers a quickly changing face.

Get to know the parks in winter. Rent snowshoes at Wuksachi Lodge or Grant Grove and be the first to make a trail through new-fallen snow. Notice how the trunks of the behemoth sequoias shine red against the white, and listen for the call of the raven. Look at the face of winter, before the face of winter changes. It will "take a village" – parks, cities, scientists, and you – working together to tackle the challenges of climate change.

-Adrienne Freeman, NPS